

Amendments To The Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A self-centering unit for tire removal machines, comprising a plate ~~provided with~~ having a ~~series~~ plurality of angularly equidistant radial slots therein, in each of which and a clamping jaw ~~is received and slides to~~ in abutting engagement in each of said slots so as to slide in said slot and grip the edge of a wheel rim, said clamping jaws being directly linked together by linking means for moving all of said clamping jaws together always equidistant from the central axis of said plate, at least one of said clamping [[jaw]] jaws being operably connected with an ~~actuator means for causing which moves~~ said linking means to translate each of said clamping [[jaw]] jaws a same distance in a radial direction towards or away from the central axis of the plate, wherein a positioner device is interposed between said at least one of said clamping [[jaw]] jaws and said actuator means, the positioner device being arranged to vary a working position of said at least one of said clamping [[jaw]] jaws relative to the actuator ~~means~~ without modifying the travel stroke of said clamping jaws.

Claims 2-4. (Canceled)

5. (Previously Presented) The self-centering unit as claimed in claim 4, characterized in that said locking means are operably connected with said crankpin.

6. (Previously Presented) The self-centering unit as claimed in claim 4, characterized in that said locking means are operably connected with the bushing.

7. (Previously Presented) The self-centering unit as claimed in claim 4, characterized in that said bushing is provided with a lateral wall which presents at least two holes angularly spaced apart.

8. (Previously Presented) The self-centering unit as claimed in claim 4, characterized in that said means for locking said positioner device in position includes a pin.

9. (Previously Presented) The unit as claimed in claim 7, characterized in that said pin is elastically maintained inserted in one of the holes present in said bushing by the action of a spring.

10. (Previously Presented) The unit as claimed in claim 8, characterized in that said pin is elastically maintained in a hole present in the crankpin of the crankshaft by the action of a spring.

11. (Previously Presented) A self-centering unit as claimed in claim 7, characterized in that said locking means associated with said crankshaft comprise a cup-shaped body the end of which is provided with a hole, and within which there slides a pin, one end of which is intended to be received in one of the at least two holes of the bushing, whereas the opposite end emerges from the cup-shaped body via said hole and is connected to an operating knob, said pin being elastically maintained within one of the at least two holes of the bushing by a spring which is mounted about the pin and acts between the end of said cup-shaped body and a shoulder on the pin.

12. (Previously Presented) The self-centering unit as claimed in claim 6, characterized in that said locking means associated with the bushing comprise a U-shaped latch, the base wall of which presents a rectangular aperture to be received by and to translate on two flat portions of the bushing, and the arms of which are provided with a pin and a spring, said pin being normally received in a matching hole in the crankpin of the crank by the action of said spring.

13. (Currently Amended) The self-centering unit as claimed in claim 1, characterized in that said actuator ~~means~~  
for causing which causes the clamping jaws to translate

~~comprise~~ comprises at least one pneumatic cylinder-piston unit.

14. (New) A self-centering unit for tire removal machines, comprising a plate having a plurality of angularly equidistant radial slots therein and a clamping jaw in abutting engagement in each of said slots so as to slide in said slot and grip the edge of a wheel rim, said clamping jaws being directly linked together by linking means for moving all of said clamping jaws together always equidistant from the central axis of said plate, at least one of said clamping jaws being operably connected with an actuator which moves said linking means to translate each of said clamping jaws a same distance in a radial direction towards or away from the central axis of the plate, wherein a positioner device is interposed between said at least one of said clamping jaws and said actuator means, the positioner device being arranged to vary a working position of said at least one of said clamping jaws relative to the actuator without modifying the travel stroke of said clamping jaws, a positioner device comprising a crankshaft provided with a crank having a crankpin, said crankpin being received in a bushing rigid with said clamping jaw and the crank being connected to said actuator, and means for locking said crankshaft in different working positions.

15. (New) The self-centering unit as claimed in claim 14, characterized in that said locking means are operably connected with said crankpin.

16. (New) The self-centering unit as claimed in claim 14, characterized in that said locking means are operably connected with the bushing.

17. (New) The self-centering unit as claimed in claim 14, characterized in that said bushing is provided with a lateral wall which presents at least two holes angularly spaced apart.

18. (New) The self-centering unit as claimed in claim 14, characterized in that said means for locking said positioner device in position includes a pin.

19. (Previously Presented) The unit as claimed in claim 17, characterized in that said pin is elastically maintained inserted in one of the holes present in said bushing by the action of a spring.

20. (Previously Presented) The unit as claimed in claim 18, characterized in that said pin is elastically maintained in a hole present in the crankpin of the crankshaft by the action of a spring.